California Regional Water Quality Control Board
Santa Ana Region

Cleanup and Abatement Order No. 98-96
for
San Bernardino County Waste System Division
Mid-Valley Sanitary Landfill
San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board) finds that:

1. The County of San Bernardino Waste System Division (hereinafter Discharger) is the owner and operator of the Mid-Valley Sanitary Landfill (MVSL), located approximately ¼ mile north and east of the intersection of Sierra and Highland Avenues, in the City of Rialto in a portion of Section 29, T1N, R5W, SBB&M. The location of the site is shown on Attachment A, which is hereby made a part of this order.

2. The Board adopted waste discharge requirements (WDRs) for MVSL as Order No. 89-70 on July 14, 1989. Requirements for the landfill were amended by WDR Order Nos. 93-57 and 94-17 to incorporate new federal regulations (Subtitle D) and to prescribe uniform drainage and erosion control system requirements for municipal solid waste (MSW) landfills in the Santa Ana Region. The Orders contain discharge, monitoring and reporting requirements which require the Discharger to maintain the landfill in accordance with Title 27, Division 2, Subdivision 1 (formally Title 23, Division 3, Chapter 15) of the California Code of Regulations (CCR), and with State Board Resolution 93-62.

3. The landfill property currently encompasses approximately 498 acres, of which approximately 142 acres is being used for landfilling. The 142 landfilled acres consist of a southern 60-acre parcel located in the southwestern part of the property (Phase I) and an approximately 82-acre parcel on the northeast corner of the site (Phase II). The remainder of the property is designated for borrow and future landfill expansion. Landfilling has been conducted since 1958, using area fill methods.

4. The existing landfill is unlined and currently receives approximately 800 tons per day of Class III non-hazardous and inert waste as defined by California Code of Regulations, Title 27, Division 2 (Title 27), Sections 20220 and 20230. Specifically, wastes include tires, dead animals, and construction, demolition, agricultural, industrial, and mixed municipal wastes.

5. The landfill overlies the Rialto Groundwater Subbasin, the beneficial uses of which include:

    a. Municipal and domestic supply,
    b. Agricultural supply,
    c. Industrial process supply, and
    d. Industrial service supply.

6. Groundwater beneath MVSL exists under unconfined and confined conditions at depths ranging from approximately 315 feet to 450 feet, and occurs in sandy gravels, gravelly sands and sands that typically have excellent water-bearing and water yielding properties. Groundwater generally flows in a southeasterly direction.

7. The monitoring system at MVSL consists of 29 groundwater monitoring wells at both upgradient and downgradient locations, a nested piezometer, three surface water sampling locations, and eight soil-pore gas monitoring points.

8. The groundwater monitoring data, submitted quarterly in compliance with Monitoring and Reporting Program (M&RP) 93-57, demonstrate that volatile organic compounds (VOCs) have been released from the landfill.

9. On October 3, 1994, the Discharger identified a tentative release of VOCs from MVSL and notified the Board of the release.

10. On February 3, 1995, the Discharger submitted a Revised Report of Waste Discharge (ROWD) for an Evaluation Monitoring Program (EMP) to the Board.

11. On March 31, 1995, Board staff approved the EMP Workplan. The first part of the Phase I EMP was completed in January 1996 and included the drilling and installation of three additional monitoring wells.

12. In March 1996, the Discharger submitted a modified Phase I EMP Workplan to construct nine additional groundwater monitoring wells and 1 nested piezometer, to characterize the vertical and lateral extent of groundwater impacts. Results of this second and final portion of the Phase I EMP investigation, summarized in a report submitted to the Board in May 1997 identified multiple aquifers below MVSL. Two aquifers (the upper unconfined aquifer and the intermediate confined aquifer) were identified as being adversely impacted by VOCs at the MVSL boundary.

13. The only VOC that routinely exceeds its federal Maximum Contaminant Level (MCL) of 5 parts per billion (ppb) is tetrachloroethene (PCE). PCE concentrations in groundwater near the landfill range from 7.0 to 60.0 ppb.

14. In May 1997, the Discharger submitted a Phase I Engineering Feasibility Study (EFS) that evaluated alternative mitigation measures at the facility's boundary or point-of-compliance (POC). The Phase I EFS proposed implementation of a Corrective Action Demonstration Project consisting of three groundwater extraction wells, three re-injection wells, four groundwater monitoring wells, and an air stripper treatment plant located on site. The plan was approved by Board staff on July 15, 1997.

15. On September 1, 1997, the POC Corrective Action Demonstration Project became operational.

16. On November 26, 1997, the Discharger submitted a workplan to complete a Phase II (Off-site) EMP that involved construction of six monitoring wells to further characterize the nature and downgradient extent of groundwater impacts near the MVSL.

17. In April 1998, the Discharger submitted a Status Summary Report detailing the results obtained in the Corrective Action Demonstration Project.

18. In June 1998, the Discharger submitted a report of findings from the Phase II (Off-site) EMP that characterized the nature and extent of groundwater impacts downgradient of the MVSL. The report concluded that the VOC plume from MVSL has extended at least 1.6 miles downgradient of the boundary of the site, and has impacted municipal supply wells owned by Fontana Water Company (FWC). Attachment B shows the VOC plume distribution.

19. FWC wells F-10A and F-10B have been impacted by VOC contamination, including tetrachloroethylene (PCE). PCE concentrations for wells F-10A and F-10B have been as high as 22.8 ppb and 8.4 ppb, respectively. Other VOCs are present in the wells at levels below MCLs. FWC discontinued pumping well F-10A in March 1997 and well F-10B in May 1997 due to the presence of PCE.

20. On July 15, 1998, the Discharger submitted a revised Phase II (Offsite) EFS for Corrective Action that identified proposed well-head treatment measures to be taken to mitigate and contain the contaminant plume downgradient of the MVSL. Those measures include pumping and treating wells F-10A and F-10B and possibly one or more additional wells at other sites yet to be determined.

21. Implementation of the Discharger's proposed offsite groundwater mitigation plan would require that FWC agree to allow wells F-10A and F-10B to be used for this purpose. The Discharger and FWC are currently negotiating an agreement to provide for this use of the wells. Before wells F-10A and F-10B can be used as drinking water sources or as part of the offsite groundwater mitigation plan, the Discharger must take all steps necessary in cooperation with FWC to assure full compliance with all applicable safe drinking water standards and requirements, as determined by the California Department of Health Services.

22. The Board has notified the Discharger and other interested parties of its intent to adopt this order.

23. The Board, at a public hearing held on October 9, 1998, received evidence and considered all relevant information pertaining to this order.

24. This enforcement action is being taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) in accordance with Section 15321, Article 19, Division 3, Title 14, California Code of Regulations.

25. The Discharger has caused or permitted waste to be discharged or deposited where it is, or probably will be discharged into the waters of the state and creates

or threatens to create a condition of pollution or nuisance. It is therefore appropriate to order the Discharger to take necessary remedial action.

26. Water Code Section 13304 allows the Board to recover reasonable expenses from responsible parties for overseeing cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely affecting the state's waters. It is the Board's intent to recover such costs for regulatory oversight work conducted in accordance with this order.

IT IS HEREBY ORDERED that, in accordance with Section 13304 of the California Water Code:

1. The Discharger shall intercept and control the VOC plume at MVSL's POC, and shall abate the effects of the plume downgradient of the site.

2. The Discharger shall submit preliminary construction plans for the on-site POC and Off-Site Corrective Action Systems (CAS), pursuant to the schedule included on Attachment C.

3. The Discharger shall begin construction of the POC and Off-Site CAS to remediate all groundwater pollution associated with the MVSL, in compliance with Attachment C.

4. The Discharger shall submit reports certifying that construction of the POC and Off-Site CAS has been completed, in compliance with Attachment B. The report shall include the results of performance testing that demonstrates the effectiveness of the system and its capacity to implement the proposed Corrective Action Program (CAP).

5. The Discharger shall conduct quarterly monitoring of groundwater downgradient of both the POC and Off-site CAS in accordance with Attachment C.

6. The Discharger shall submit semi-annual reports, as specified in Attachment C on the status and effectiveness of the CAP until the Regional Board determines that full compliance has been achieved pursuant to Section 20410 (c) of Title 27.

7. If the Executive Officer determines that the CAP is not effectively containing the plume, the Discharger shall submit an amended ROWD. This amendment must be submitted within 90 days of receiving written notification from the Executive Officer that changes to the program are necessary.

8. If the Executive Officer determines that the Off-Site CAS cannot be implemented due to the lack of an agreement between the Discharger and FWC regarding the use of the FWC wells, the Discharger shall submit a plan for an alternative Off-Site CAS. This plan shall be submitted within 90 days of notification from the Executive Officer that the plan is necessary. The plan shall include a proposed time schedule for implementation.

9. The Discharger shall implement the plan submitted pursuant to Item 8, above, in accordance with the time schedule approved by the Executive Officer.

10. Until the water extracted from the FWC wells can be treated for pollutants for which the Discharger is responsible pursuant to this order, and used as a public drinking water supply in accordance with federal and state safe drinking water standards and requirements as determined by the California Department of Health Services, the Discharger shall provide to FWC (or the entity entitled to extract water from the FWC wells if other than FWC) an alternate water supply which meets all applicable safe drinking water standards and requirements, or, at the Discharger's option, compensation for acquiring, developing, and providing an alternate water supply.

11. Once it is demonstrated that the Corrective Action Systems have reduced the concentrations of constituents of concern (COCs) (i) to levels below their respective regulatory limits throughout the zone affected by the release, and (ii) to non-detect at any municipal drinking water supply wells in the zone affected by the release, the Discharger shall continue to implement the Detection Monitoring Program (DMP) for a period of not less than three years, to demonstrate that the landfill is in compliance with the water quality protection standards pursuant to Title 27, Section 20390.

12. Upon termination of the Corrective Action Systems, the Discharger shall implement the revised DMP, as approved by the Executive Officer, for a period of at least three year, beginning immediately after the suspension of Corrective Action systems.

13. Any violations of the time schedule specified in Attachment C will be considered a violation of this order.

14. The Executive Officer may adjust the time schedule specified in Attachment C for verifiable and unforeseen delays beyond the control of the Discharger, provided, however, the Executive Officer shall give a minimum of fourteen (14) days notice of any proposed time schedule change to any interested party prior to its final approval by the Executive Officer.

If, in the opinion of the Executive Officer, the Discharger fails to comply with any part of this order, the Executive Officer is directed to issue a complaint assessing administrative civil liability or to request that the Attorney General take judicial enforcement action against the Discharger, including an injunction and civil monetary remedies, if appropriate, pursuant to Sections 13331, 13350, 13385, 13386, and/or 13387 of the California Water Code.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 9, 1998.

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Gerard J. Thibeault
Executive Officer

Attachment C

Preliminary Compliance Schedule
Corrective Action System Implementation
Mid-Valley Sanitary Landfill

	POC CAS	Off-Site CAS
Submit Preliminary CAP Construction Plans to RWQCB	January 1, 1999	March 1, 1999
Construction Plan Approval by RWQCB	February 1, 1999	April 1, 1999
Begin Construction	May 1, 1999	July 1, 1999
End Construction	December 1, 1999	December 31, 1999
Groundwater Monitoring	Quarterly: April 30 July 30 October 30 January 30	Quarterly: April 30 July 30 October 30 January 30
System Operational	December 31, 1999	January 31, 2000
Semi-Annual Report	April 30, 2000 (each year thereafter)	April 30, 2000 (each year thereafter)
Semi-Annual Report	October 30, 2000 (each year thereafter)	October 30, 2000 (each year thereafter)